

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 9 and 59

[AD-FRL-6149-5]

RIN 2060-AE35

National Volatile Organic Compound Emission  
Standards for Automobile Refinish Coatings

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national volatile organic compound (VOC) emission standards for automobile refinishing coatings pursuant to section 183(e) of the Clean Air Act (Act). This final rule is based on the Administrator's determination that VOC emissions from the use of automobile refinishing coatings have the potential to cause or contribute to ozone levels that violate the national ambient air quality standards (NAAQS) for ozone. Ozone is a major component of smog which causes negative health and environmental impacts when present in high concentrations at ground level. The final rule is estimated to reduce VOC emissions by 31,900 tons per year (tpy) by requiring manufacturers and importers to limit the VOC content of automobile refinishing coatings.

EFFECTIVE DATE: The effective date is [insert date of FEDERAL REGISTER publication]. Incorporation by reference of certain publications listed in the regulation is approved

by the Director of the Federal Register as of [insert date of FEDERAL REGISTER publication].

ADDRESSES: Technical Support Documents. The regulation promulgated today is supported by two background information documents (BIDs), one specific to the automobile refinish coatings rule, and one that addresses comments on the study and Report to Congress under section 183(e) that is a basis for this rule. The document, "Volatile Organic Compound Emissions from Automobile Refinishing - Background Information for Promulgated Standards" (EPA-453/R-96-011b), contains a summary of the public comments made on the proposed automobile refinish coatings rule and the Agency's responses to the comments. The document, "Response to Comments on Section 183(e) Study and Report to Congress" (EPA-453/R-98-007), contains a summary of all the public comments made on the section 183(e) study and Report to Congress and the list and schedule for regulation as well as the Agency's responses to the comments.

These documents may be obtained from several sources: (1) the docket for this rulemaking; (2) the U.S. Environmental Protection Agency Library (MD-35), Research Triangle Park, North Carolina 27711, telephone (919) 541-2777; (3) National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22151,

telephone (703) 487-4650; and (4) through the Internet at <http://www.epa.gov/ttn/oarpg/ramain.html>.

Docket. Docket No. A-95-18, containing supporting information used in developing the promulgated standards, is available for public inspection and copying from 8:00 a.m. to 5:30 p.m. Monday through Friday, at the EPA's Air and Radiation Docket and Information Center, Waterside Mall, Room M-1500, Ground Floor, 401 M Street SW, Washington, DC 20460. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Mr. Mark Morris at (919) 541-5416, Organic Chemicals Group, Emission Standards Division (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711 ([morris.mark@epamail.epa.gov](mailto:morris.mark@epamail.epa.gov)).

SUPPLEMENTARY INFORMATION:

Regulated Entities. Entities potentially regulated by this action are manufacturers and importers of automobile refinish coatings or coating components. An automobile refinish coating component is a portion of a coating, such as a reducer or thinner, hardener, additive, etc., recommended (by its manufacturer or importer) to distributors or end-users for automobile refinishing. Automobile refinishing is the process of coating automobiles or their parts, including partial body collision repairs, that is subsequent to the original coating applied at an

automobile original equipment manufacturing plant.

Regulated categories and entities include:

Category	Examples of regulated entities
Industry	Manufacturers or importers of automobile refinish coatings or coating components that are manufactured for sale or distribution in the U.S., including all U.S. territories.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your product is regulated by this action, you should carefully examine the applicability criteria in § 59.100 of the final rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding FOR FURTHER INFORMATION CONTACT section of this preamble.

Judicial review. The EPA proposed this section 183(e) rule for automobile refinish coatings on April 30, 1996 (61 FR 19005), and issued a supplemental proposal on

December 30, 1997 (62 FR 67784). This notice promulgating a rule for automobile refinish coatings constitutes final administrative action concerning the proposal. Under section 307(b)(1) of the Act, judicial review of this final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit by [insert 60 days after publication in the FEDERAL REGISTER]. Under section 307(d)(7)(B) of the Act, only an objection to this rule which was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the Act, the requirements established by today's final action may not be challenged separately in any civil or criminal proceeding brought by the EPA to enforce these requirements.

Technology Transfer Network. The Technology Transfer Network (TTN) is one of the EPA's electronic bulletin boards. The TTN provides information and technology exchange in various areas of air pollution control, including copies of this rule and supporting documents. The TTN is free and is accessible through the Internet at "<http://www.epa.gov/ttn>." For more information on the TTN, call the HELP line at (919) 541-5384.

Outline. The following outline is provided to aid in reading this preamble to the final rule.

- I. Purpose and Summary of the Standards
  - A. Purpose of Regulation
    - 1. Ground-level ozone
    - 2. Automobile Refinish Coatings Regulation
    - 3. Background on section 183(e)
  - B. Summary of the Standards
- II. Summary of Considerations in Developing the Rule
  - A. Technical Basis of Regulation
  - B. Stakeholder and Public Participation
- III. Summary of Impacts
  - A. Volatile Organic Compound Reductions
  - B. Secondary Air, Water, and Solid Waste Impacts
  - C. Energy Impacts
  - D. Cost and Economic Impacts
- IV. Significant Comments and Changes to the Proposed Rule
  - A. Applicability
  - B. Lacquer Topcoats
  - C. Specialty Coatings
  - D. Test Methods
  - E. Coatings with Multiple Uses
- V. Administrative Requirements
  - A. Docket
  - B. Paperwork Reduction Act
  - C. Executive Order 12866
  - D. Executive Order 12875

E. Regulatory Flexibility Act/Small Business

Regulatory Enforcement Fairness Act of 1996

F. Unfunded Mandates Act of 1995

G. Submission to Congress and the Comptroller General

H. National Technology Transfer and Advancement Act

I. Executive Order 13045

I. Purpose and Summary of the Standards

A. Purpose of Regulation

1. Ground-level Ozone

Ground-level ozone, which is a major component of "smog," is formed in the atmosphere by reactions of VOC and oxides of nitrogen ( $\text{NO}_x$ ) in the presence of sunlight. The formation of ground-level ozone is a complex process that is affected by many variables.

Exposure to ground-level ozone is associated with a wide variety of human health effects, agricultural crop loss, and damage to forests and ecosystems. Acute health effects are induced by short-term exposures to ozone (observed at concentrations as low as 0.12 parts per million (ppm)), generally while individuals are engaged in moderate or heavy exertion, and by prolonged exposures to ozone (observed at concentrations as low as 0.08 ppm), typically while individuals are engaged in moderate exertion. Moderate exertion levels are more frequently experienced by individuals than heavy exertion levels. The acute health

effects include pulmonary function responses, transient respiratory symptoms, effects on exercise performance, increased sensitivity of airways to irritants, increased susceptibility to respiratory infection, increased hospital admissions and emergency room visits, and pulmonary inflammation. Groups at increased risk of experiencing such effects include active children, outdoor workers, and others who regularly engage in outdoor activities and individuals with preexisting respiratory disease. Available information also suggests that long-term exposures to ozone may cause chronic health effects (e.g., structural damage to lung tissue and accelerated decline in baseline lung function).

## 2. Automobile Refinish Coatings Regulation

Before today's rule, VOC emissions from the use of automobile refinish coatings were not regulated at the Federal level. However, several States have developed automobile refinishing rules. Some industry parties and States have urged the EPA to issue rules for automobile refinish coatings to encourage consistency across the country. Many States with ozone pollution problems are supportive of an EPA rulemaking that will assist them in their efforts toward achievement of ozone attainment. Although regulated entities in all States will be required to comply with these national standards, some States may wish to promulgate VOC standards more stringent than the



national rule to assist in achieving attainment with the NAAQS for ozone.

### 3. Background on Section 183(e)

Section 183(e) of the Act mandates a new regulatory program for controlling VOC emissions. Through this provision, Congress required the EPA to conduct a study of emissions of VOC into the ambient air from consumer and commercial products to determine their potential to contribute to ozone nonattainment, to develop criteria based upon statutory factors for regulation of such products, and to list for regulation, based on the criteria, categories of products that account for at least 80 percent of the emissions from such products in nonattainment areas, on a reactivity adjusted basis.

In accordance with section 183(e) of the Act, the Administrator has determined that VOC emissions from the use of automobile refinish coatings have the potential to contribute to ozone levels that violate the NAAQS for ozone. Under authority of section 183(e), the EPA conducted a study of the VOC emissions from consumer and commercial products to determine their potential to contribute to ozone levels which violate the NAAQS for ozone. Based on the results of the study, and by application of the criteria, the EPA determined that the emissions from automobile refinish coatings should be regulated under section 183(e).

Consequently, the EPA and many States consider the regulation of automobile refinish coatings to be an important component of the overall approach to reducing those emissions that contribute to ozone nonattainment. The EPA's determination that VOC emissions from the use of automobile refinish coatings have the potential to contribute to nonattainment of the ozone NAAQS and the decision to regulate automobile refinish coatings are discussed in the preamble to the proposed rule (61 FR 19005), in the "Consumer and Commercial Products Report to Congress" (EPA-453/R-94-066-A), in the Federal Register notice announcing the schedule for regulation (60 FR 15264), and in a separate Federal Register notice published today that constitutes final action on the agency's listing of automobile refinish coatings for regulation.

#### B. Summary of the Standards

##### Applicability

The provisions of the rule apply to automobile refinish coatings and coating components that are manufactured on or after [insert date 120 days after date of publication in the FEDERAL REGISTER] for sale or distribution in the United States, including the District of Columbia and all U.S. territories. The entities regulated by the rule include manufacturers and importers of automobile refinish coatings or coating components.

The final rule does not apply to coatings or coating components manufactured before the compliance date of the rule, for use by original equipment manufacturers, or for sale outside the United States. The final rule also does not apply to coatings supplied in nonrefillable aerosol containers, lacquer topcoats or their components, or touch-up coatings.

#### Regulated Entities

Regulated entities are generally defined under section 183(e) of the Act to include potentially manufacturers, processors, wholesale distributors, and importers. Under this final rule, regulated entities include manufacturers and importers of automobile refinish coatings or coating components which are manufactured for sale or distribution in the United States. Since the distribution of coatings has no effect on whether compliant coatings are used, distributors are not regulated entities under this rule.

#### Standards

Coatings subject to this rule shall comply with the VOC content standards listed in table 1. Combinations of automobile refinish coating components recommended for use in the coating categories given in table 1 shall comply with the appropriate VOC content standards.

TABLE 1.-- VOC CONTENT STANDARDS FOR AUTOMOBILE REFINISH COATINGS

Coating Category	VOC Content <sup>a</sup> , grams/liter (pounds/gallon)
Pretreatment Wash Primer	780 (6.5)
Primer/Primer Surfacer	580 (4.8)
Primer Sealer	550 (4.6)
Single/2-Stage Topcoats	600 (5.0)
Topcoats of 3 or more stages	630 (5.2)
Multi-colored topcoats	680 (5.7)
Specialty Coatings <sup>b</sup>	840 (7.0)

<sup>a</sup>VOC content means the amount of VOC in a coating that has been prepared for application according to the regulated entity's mixing instructions, excluding water and exempt compounds. English units are provided for information only. Regulation enforcement will be based on the metric levels.

<sup>b</sup>Specialty coatings include adhesion promoters, low-gloss coatings, bright metal trim repair coatings, cut-in (jamming) clearcoats, elastomeric materials, impact-resistant coatings, underbody coatings, uniform finish blenders, and weld-through primers.

#### Labeling Requirements

Each regulated entity must provide the following information on each container: (1) the day, month, and year on which the product was manufactured; or (2) a code indicating such a date.

#### Reporting

Regulated entities must file an initial report to the appropriate EPA Regional Office no later than [insert date 120 days after date of publication in the FEDERAL REGISTER] or within 180 days after a regulated entity becomes subject to the rule, whichever is later. Addresses for the EPA Regional Offices are provided in §59.108. The initial report must include the following information:

(1) The name and mailing address of the regulated entity.

(2) In cases where codes are used to represent the date of manufacture, the regulated entity shall submit an explanation of each date code to the Administrator.

(3) The street address of each of the regulated entity's facilities in the United States that is producing, packaging, or importing automobile refinish coatings or coating components subject to the provisions of this subpart.

(4) A list of the categories from table 1 of this subpart for which the regulated entity recommends the use of automobile refinish coatings or coating components.

Each regulated entity must submit an explanation of any new date codes used by the regulated entity no later than 30 days after products bearing the new date code are first introduced into commerce.

Except for applications that may be submitted by regulated entities requesting variances, there are no reporting requirements beyond those described above.

#### Variance

The rule allows regulated entities to submit a written application to the Administrator requesting a variance if, for technological or economic reasons beyond their reasonable control, they cannot comply with the requirements of the rule.

Upon receipt of a variance application, the Administrator will determine whether, under what conditions, and to what extent, a variance from the requirements of the rule is necessary and will be permitted.

An approved variance will designate a final compliance date and a condition that specifies increments of progress necessary to assure timely compliance. A variance shall end immediately upon the failure of the party to whom the variance was granted to comply with any term or condition of the variance.

#### Compliance Provisions

The rule specifies the procedures to determine the VOC content of coatings subject to the rule. The VOC content of coatings will be determined using the EPA's Method 24 - "Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface

Coatings," found in 40 CFR part 60, appendix A. Method 24 is the EPA's standard method for determining the VOC content of coatings.

For purposes of determining whether a primer qualifies as a pretreatment wash primer, the acid weight percent of such primers shall be determined using the American Society for Testing and Materials (ASTM) Test Method D 1613-96 (incorporated by reference) to determine compliance with the definition of pretreatment wash primer as provided in § 59.101 of this subpart.

For purposes of determining whether a coating qualifies as a low-gloss coating, the gloss reading of low-gloss coatings shall be determined using ASTM Test Method D 523-89 (incorporated by reference) to determine compliance with the definition of low-gloss coating as provided in § 59.101 of this subpart.

Although the EPA has chosen Method 24 as the reference method for determining compliance with the VOC content requirements of this rule, it is not the exclusive method for determining compliance. The manufacturer or importer may also use a different analytical method than Method 24 (if it approved by the Administrator on a case-by-case basis), formulation data, or any other reasonable means to determine the VOC content of coatings. However, the EPA may require a Method 24 analysis to be conducted, and if there

are any inconsistencies between the results of a Method 24 test and any other means for determining VOC content, the Method 24 test results will govern. The EPA can use other evidence as well to establish whether or not a manufacturer or importer is in compliance with the provisions of this rule.

## II. Summary of Considerations in Developing the Rule

### A. Technical Basis of Regulation

Standards under Section 183(e) of the Act must reflect the Agency's determination of best available controls (BAC) for the product category. The Act defines BAC as:

the degree of emissions reduction the Administrator determines, on the basis of technological and economic feasibility, health, environmental, and energy impacts, is achievable through the application of the most effective equipment, measures, processes, methods, systems or techniques, including chemical reformulation, product or feedstock substitution, repackaging, and directions for use, consumption, storage, or disposal.

The statute thus empowers the EPA to examine a variety of considerations to use in determining the best means of obtaining VOC emission reductions from a given consumer or commercial product category. As discussed in the preamble to the proposed rule (61 FR 19005, April 30, 1996), the primary factors the EPA considered in determining BAC for automobile refinish coatings were technological and economic feasibility, and environmental impacts.



The EPA has determined that BAC for automobile refinish coatings consists of specific VOC content limits, expressed as mass of VOC per volume of coating, for each type of coating as listed in § 59.102. Section 183(e) of the Act allows the EPA to consider a wide range of strategies and technologies in determining BAC. The determination must be based on technological and economic feasibility, as well as on health, environmental, and energy impacts. The EPA has determined that, in most cases, all or most of a coating's VOC content is emitted during use. Therefore, the EPA concluded that limits on the VOC content would be the most feasible and least disruptive control measure to obtain appropriate VOC emission reductions. In working to comply with State VOC rules over the past several years, automobile refinish coating manufacturers have already developed low-VOC coatings. The standards reflect the degree of emission reduction that the EPA has determined to be BAC for different types of automobile refinish coatings. The EPA selected the VOC limits based primarily on existing State and local VOC emission standards, coating VOC content and sales information, analysis of coating technologies, performance considerations, cost considerations, market impacts, and stakeholder input.

As discussed in the preamble to the proposed rule, the BAC selection process involved the selection of coating

categories and the determination of VOC content limits for those categories. Primers and topcoats are the general categories of automobile refinish coatings. Decisions to divide these categories into more specific categories was a direct consequence of the VOC content levels under consideration. For example, the primer category is fairly broad and encompasses several coating applications. The determination of the primer (and primer surfacer) VOC limit was discussed in the preamble to the proposed rule. The creation of a separate category for pretreatment wash primers was necessary because the EPA had no information indicating this specific primer type could achieve the lower VOC limit of the general primer category. The limit selected for the pretreatment wash primer category is essentially the VOC level of such primers in use today; therefore, the EPA anticipates no emission reductions from this low-usage category. The VOC content limit determined to be BAC for another category, primer sealers, is lower than the primer limit, since coating product information indicates that primer sealers can achieve a lower limit.

Topcoats are also divided into several categories. BAC for single and 2-stage topcoats was determined after considering the technical feasibility and cost impacts of the use of topcoats at various VOC content levels. As discussed in the preamble to the proposed rule, the EPA has

no information indicating that topcoats of 3 or more stages can achieve the same limit as single and 2-stage topcoats; therefore, a separate category was created for such topcoats. As a result of a public comment, another topcoat category has been added in this final rule for multi-colored topcoats. These low-usage coatings are durable and wear resistant, and are used mainly for lining the cargo beds of trucks. The EPA established the VOC limit for this category based on State rules and public comments. The EPA has no information indicating that a lower VOC limit can be achieved.

The specialty coating category contains several coatings designed for very specific uses. These coatings do not exist with a wide variety of VOC levels. Like pretreatment wash primers, the VOC limit for specialty coatings is essentially the VOC level of such coatings already in use. This category contains coatings that are used infrequently, and the EPA does not anticipate VOC reductions from this category.

#### B. Stakeholder and Public Participation

The EPA proposed the automobile refinish coatings rule and published the preamble in the Federal Register on April 30, 1996 (61 FR 19005) and December 30, 1997 (62 FR 67784). The EPA placed the proposed regulatory text, BID, and Economic Impact Analysis (EIA) in a docket open to the

public at that time and made them available to interested parties. The EPA solicited comments at the time of the proposal.

To provide interested persons the opportunity for oral presentation of data, views, or arguments concerning the proposed standards, a public hearing was held in Research Triangle Park, North Carolina on May 30, 1996. Seven people presented oral testimony at this hearing. The public comment period was open from April 30, 1996, to July 1, 1996, and from December 30, 1997, to February 13, 1998. Twenty-six comment letters were received. Commenters included industry representatives, States, trade associations, and others. The comments have been carefully considered, and changes have been made to the proposed standards when determined by the Administrator to be appropriate. A detailed discussion of these comments and responses can be found in the Background Information Document, which is referenced in the ADDRESSES section of this preamble.

A separate document in today's Federal Register contains a summary of public comments and EPA responses regarding the section 183(e) study, the Report to Congress, the list of consumer and commercial product categories selected for regulation, and the schedule for regulation.

### III. Summary of Impacts

A. Volatile Organic Compound Reductions

The proposed standards would reduce nationwide emissions of VOC from the use of automobile refinish coatings by an estimated 28,900 Mg (31,900 tons). These reductions represent a 33% reduction from the 1995 baseline emissions estimates. Since many regulated VOC species are also on the list of hazardous air pollutants (HAP) in section 112 of the Act, the proposed rule is expected to reduce some HAP emissions from the use of automobile refinish coatings.

B. Health Effects

Because VOC are precursors to ozone formation, the VOC reductions from automobile refinish coatings will contribute to a decrease in adverse health effects that result from exposure to ground-level ozone. These health effects result from short-term or prolonged exposure to ground-level ozone and include transient respiratory symptoms, effects on exercise performance, increased airway responsiveness, increased susceptibility to respiratory infection, increased hospital admissions and emergency room visits, and transient pulmonary inflammation. Available information also suggests that long-term exposures to ozone may cause chronic health effects (e.g., structural damage to lung tissue and accelerated decline in baseline lung function).

C. Secondary Air, Water, and Solid Waste Impacts

No significant adverse secondary air, water, or solid waste impacts are anticipated from compliance with these standards. Generally, the use of low-VOC coatings, a pollution prevention technique, will be used to comply with these standards. In cases where conversion from solventborne to waterborne coatings is the method used to achieve compliance, an increase in wastewater discharge may occur if waste from the manufacture of waterborne coatings is discharged by manufacturers to publicly owned treatment works.

The regulations do not impact existing product inventories. Products manufactured before the compliance deadline are not affected. Excluding existing product inventories from the regulations will eliminate any incremental solid waste increase due to discarded unsold products. The new products are not expected to require any more packaging than existing products, and thus the volume of discarded packaging should not increase.

D. Energy Impacts

The EPA anticipates no increase in energy usage as a result of this rule. The standards do not require the use of control devices that utilize energy to reduce the amount of VOC emitted to the air. The EPA is also not aware of any incremental energy use increase expected from the production

of new formulations of automobile refinish coatings and coating components.

E. Cost and Economic Impacts

The total cost of this rule includes coating manufacturer process modification costs, and costs for training coating manufacturer representatives, distributors, and body shop personnel. The annual cost of this rule is 4.5 million dollars (1993 dollars), or about \$160 per megagram of VOC emissions reductions. This cost per megagram of VOC emission reduction makes this rule an economically efficient means of obtaining VOC emission reductions, when compared to the cost per megagram of reduction potentially available through other control measures. Economic impacts are predicted to be minimal with a maximum price increase of two-tenths of one percent (0.2%) or less, and a 0.02% increase in the cost of an average repair job. Small business impacts are not expected to be significant.

IV. Significant Comments and Changes to the Proposed Standards

The EPA received a total of 26 comment letters on the proposed rule. In addition, 7 speakers presented testimony at a public hearing held in Research Triangle Park, North Carolina, on May 30, 1996. The more significant comments on the rule are discussed in this section of the

preamble. A complete summary of comments and the EPA's full responses are presented in the BID for the promulgated rule, as referenced in the ADDRESSES section of this preamble.

In response to public comments on the proposed standards, the EPA has made several changes to the final rule. While most of the changes are clarifications designed to make the Agency's intent clearer, the EPA did make changes to the proposed rule based upon comments received. The changes include:

- addition of definitions for "automobile refinish coating component," "low-gloss coating," and "multi-colored topcoat,"
- exemption of lacquer topcoats,
- clarification of the requirements for coatings with multiple uses,
- addition of the multi-colored topcoat category, and
- reorganization of the rule for clarity.

The following sections of the preamble discuss the most significant issues raised by commenters and the EPA's responses to them.

#### A. Applicability

Several commenters supported including manufacturers and importers of automobile refinish coating components, such as thinners and hardeners, as regulated entities. The



commenters stated that excluding coating component manufacturers and importers would likely result in the use of coatings with VOC levels higher than the proposed standards, since these components would not be required to be part of a compliant coating system.

Regulated entities under the April 30, 1996, proposed rule included only manufacturers and importers of complete automobile refinish coatings. The VOC content of an automobile refinish coating depends, however, on the VOC content levels of all components that make up the coating. Coating users sometimes combine components made by multiple manufacturers when preparing a coating. Since components themselves are not coatings, a manufacturer who produces only hardeners, for example, would not have been subject to the April 1996 proposed rule. Such a manufacturer could recommend that its hardener be combined with components of other manufacturers, possibly resulting in a coating that exceeds the VOC content standards of the rule. Such a situation could essentially undermine the VOC emission reductions of the rule.

The EPA proposed in a supplemental notice (December 30, 1997, 62 FR 67784) to include as regulated entities all manufacturers and importers of automobile refinish coatings or coating components. The EPA also proposed a mechanism for determining compliance with the rule for coatings

consisting of components made or imported by multiple entities. Under this approach, manufacturers and importers of coatings or coating components must comply with the VOC content limits for complete coatings by calculating the VOC content of coatings that result from the use of their components in accordance with their recommendations.

Determining compliance for coatings consisting of components made or imported by one regulated entity is relatively easy. In general, compliance would be determined by "spot checking," where the EPA (or the regulated entity, if requested by the EPA) would obtain coating components, mix the components in the ratios recommended by the regulated entity (on the containers or in any product literature), and analyze the resulting coating using Method 24. The EPA considered requiring regulated entities to perform VOC testing of their coatings on a regular basis (e.g., every nth batch) to demonstrate compliance with the rule, but believes that such a requirement would be economically burdensome. The EPA believes that random spot checks will be adequate to encourage regulated entities to assure that all of their coating batches are compliant.

Determining the compliance of coatings that consist of components made or imported by multiple regulated entities is more difficult. The EPA considered several options for determining compliance in these cases. The EPA considered

requiring regulated entities (that recommend the use of their components with those of other regulated entities) to use Method 24 to test the coatings resulting from their recommendations. Using this information, the entities could establish the maximum allowable VOC content of their components, and the EPA would spot check components to determine compliance. However, the EPA has no standard method for determining the VOC content of individual components. Also, the VOC content of a coating is not simply the sum of the VOC contents its components, so component VOC content is not necessarily an indicator of the VOC content of the overall coating. Therefore, the EPA believes it is technically infeasible to determine compliance using component VOC content information.

Because of the technical infeasibility of the approach described above, the EPA has concluded that the responsibility for coatings should be based on product recommendations. In other words, if an entity recommends a combination of components (made or imported by one or more regulated entities), then that entity is responsible for the compliance of the resulting coating. There may be cases where a coating resulting from an entity's recommendation is noncompliant because of the components of other entities. Since this occurrence may be beyond the control of the recommending entity, the Agency determined that it would be

appropriate to provide regulated entities with a means to establish their compliance with the rule, and the Agency solicited comments on such a mechanism. In this event, the final rule provides regulated entities the opportunity to submit new or existing Method 24 test data demonstrating the compliance of the coating resulting from their recommendation. This option is technically feasible, and is appropriate since compliance is determined in essentially the same way for all regulated entities.

It is important to note that regulated entities would be liable only for the VOC content of the coatings that result from their recommendations. For example, if a regulated entity recommends that three of its coating components be combined and used in automobile refinishing, it is responsible for the coating that results from that combination. If a regulated entity recommends the substitution of one of its components for that of another regulated entity, the former entity is responsible for the resulting coating. A regulated entity is not responsible for coatings resulting from the recommendations of others, even if such recommendations involve the use of components of that regulated entity.

B. Lacquer topcoats

In the proposed rule, the EPA indicated that it was considering exempting lacquer topcoats from the rule or

including them in a specialty coating category and limiting their production. Several commenters supported the exemption of lacquer topcoats from the rule because they account for only 5-10% of coating usage, and their use is decreasing because automobile manufacturers use other coating types on new automobiles. These commenters stated that lacquers are used mainly by hobbyists who wish to restore vehicles to their original condition, including the paint finish. One commenter stated the use of lacquers to refinish modern vehicles is untenable because of inferior durability and aesthetics.

Another commenter stated that the EPA should classify lacquer topcoats as specialty coatings and consider limiting their production, since an exemption for lacquers would create inconsistencies between the national rule and State rules that do not exempt them. The commenter stated that limiting lacquer production would aid in the compliance with State rules.

The EPA has determined that it is appropriate to exempt lacquer topcoats from the final rule. The EPA agrees lacquer topcoats are less desirable than other coating types for refinishing modern automobiles, and that their use is therefore not likely to increase since they are not used on new automobiles. Lacquers are not as durable as other coatings. Since they dry by solvent evaporation alone

(rather than through chemical crosslinking), they are not resistant to solvent attack. Although other coatings generally can be used to refinish antique and classic automobiles, the finish would not be the "original" finish desired by users in this niche of automobile refinishing. The EPA exempted lacquer topcoats from the final rule because their use is decreasing, their contribution to the total VOC emissions is small, they fill a niche in the automobile refinish industry, and they cannot be reformulated to meet the VOC content limit for topcoats.

Including lacquer topcoats in a specialty coating category and limiting their production, as suggested by one commenter, does not appear to be a viable option. First, production limits set significantly below current usage levels would cause shortages of lacquer topcoats. Such shortages would restrict consumer access to the product. Second, production limits set at or near current usage levels would be equivalent to an exemption, since lacquer topcoat usage is not likely to increase. The additional recordkeeping necessary to make a production limit enforceable would be burdensome on both regulated entities and the EPA. For these reasons, the EPA decided against the creation of a specialty category with limits on production for lacquer topcoats.

Some commenters noted that an exemption would lead to an inconsistency between State and federal rules for this coating type. The EPA acknowledges that an exemption for lacquer topcoats under the national rule may make the rule less stringent than some State rules, but the EPA notes that States may still choose to be more stringent than the national rule by the inclusion of such coatings in their own rules.

C. Specialty coatings

In the preamble to the proposed rule, the EPA requested comments on methods to determine and enforce production limits for specialty coatings. Production limits were considered by the EPA as a way to prevent abuse of an open-ended definition of specialty coatings. Several commenters on the proposed rule stated that an open-ended definition of specialty coatings would allow refinish coating manufacturers to produce coatings compatible with new substrates and coatings used on new vehicles.

In the preamble to the proposed rule, the EPA discussed the difficulties associated with specialty coating production limits. Since some specialty coatings are just modifications of other coatings, it is unclear what should be limited. Also, production limits would adversely affect manufacturers and importers that produce primarily specialty coatings. Several commenters reiterated these concerns, but

no comments were received suggesting production limits or how such limits could be determined or enforced. Therefore, the final rule does not include production limits for specialty coatings.

D. Test Methods

One commenter stated that the EPA had not designated a reliable test method for determining the acid content of pretreatment wash primers. The proposed method, ASTM Test Method D 1613-91, covers the determination of total acidity in organic compound and hydrocarbon mixtures used in paints and other substances. This method consists of a titration using a color indicator to determine the endpoint of the titration. The EPA agrees that since some pretreatment wash primers are pigmented, tests using color indicators may not work. However, the proposed method can be used to determine the acid content of the acid-containing component of the primer, which does not contain the pigment.

Pretreatment wash primers typically consist of two components: a "base" coating and a catalyst. The base contains the pigment, and the catalyst contains the acid. The catalyst is a mixture of organic compounds that contains acid; therefore, it is in the scope of the proposed method. To determine the overall weight percent of acid in the primer, calculations must be performed that involve the acid content of the catalyst and the mixing ratio of the base to



the catalyst. The EPA proposed this use of ASTM Test Method D 1613-91 in the December 30, 1997, supplemental proposal. Several commenters agreed with this use of the method. One commenter on the supplemental proposal, however, stated that coating manufacturers may develop a single component pretreatment wash primer, and wondered what method would be used in such cases. Since no such coatings currently exist, the EPA has not proposed a test method for them; however, the final rule does contain a provision which allows the use of alternative methods when warranted.

E. Coatings with Multiple Uses

Several commenters recommended clarification of a proposed rule provision dealing with coatings having multiple uses. One commenter stated that a topcoat modified for a specific purpose, thus making it a specialty coating, can be interpreted to be noncompliant under the proposed rule if it does not meet the topcoat limit, which is the lowest applicable VOC content standard.

To avoid confusion, the EPA has removed the provision mentioned by the commenters. The EPA's intent in the proposed provision was to clarify that if the same combination (and mixing ratio) of coating components were recommended for use in more than one coating category, then the lowest VOC content standard would apply. Different combinations and/or mixing ratios of coating components are

considered different coatings. The modified topcoat described by a commenter is not considered a topcoat if it meets the definition of a specialty coating; therefore, it would not be required to meet the topcoat VOC content standard. A provision has been added to the final rule (§ 59.102(b)) for clarification.

V. Administrative Requirements

A. Docket

The docket is an organized and complete file of all the information considered by the EPA in the development of this rulemaking. The docket is a dynamic file, since material is added throughout the rulemaking development. The docketing system is intended to allow members of the public and industries involved to readily identify and locate documents so that they can effectively participate in the rulemaking process. Along with the statement of basis and purpose of the proposed and promulgated standards and the EPA responses to significant comments, the contents of the docket will serve as the record in case of judicial review [see 42 U.S.C. 7607(d)(7)(A)].

B. Paperwork Reduction Act

The Office of Management and Budget (OMB) has approved the information collection requirements contained in this rule under the provisions of the Paperwork Reduction Act, 44

U.S.C. 3501 *et seq.* and has assigned OMB control number 2060-0353.

The information collections required under this rule are needed as part of the overall compliance and enforcement program. The information will be used by the EPA to identify the regulated entities subject to the rule and to ensure their compliance with the rule. The reporting and labeling requirements are mandatory and are being established under sections 114 and 183(e) of the Act. All information submitted to the EPA for which a claim of confidentiality is made will be safeguarded according to the EPA policies set forth in Title 40, Chapter 1, Part 2, Subpart B-Confidentiality of Information (see 40 CFR part 2; 41 FR 36902, September 1, 1976; amended by 43 FR 39999, September 8, 1978; 43 FR 42251, September 28, 1978; 44 FR 17674, March 23, 1979).

The only information collection requirements of the rule are for labeling and reporting. To determine whether a coating or coating component is manufactured before or after the compliance date of the rule, the date of manufacture, or code representing the date, must appear on the container. Manufacturers currently include this information on containers. The rule requires all coating or coating component manufacturers and importers to submit an initial report containing their name and mailing address, an

explanation of coating or coating component date codes, if codes are used to represent the date of manufacture or import, and a list of facilities where coatings or coating components are manufactured or imported. Reporting beyond the initial report is required only for the explanation of any new date codes used by manufacturers or importers, and for requests for variances. The information to be reported is not of a sensitive nature.

The EPA estimated the cost and hour burden of the information collection requirements of the rule. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The initial report must be submitted by all coating or coating component manufacturers and importers. Averaged over a 3 year period, the EPA estimates that the initial report will require 8 hours to complete, and will be submitted by 10 respondents annually. Beyond the initial report, the EPA estimates that 3 respondents per year will spend 2 hours each reporting the explanations of any new date codes used. The total annual cost of the reporting requirements of the proposed rule is \$3,200.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for the EPA's regulations are listed in 40 CFR Part 9 and 48 CFR Chapter 15. The EPA is amending the table in 40 CFR part 9 of currently approved information collection request control numbers issued by OMB for various regulations to list the information requirements contained in this final rule.

C. Executive Order 12866

Under Executive Order 12866 [58 FR 51735 (October 4, 1993)], the EPA must determine whether a regulatory action is "significant" and therefore subject to OMB review and the requirements of this Executive Order to prepare a regulatory impact analysis (RIA). The Order defines "significant regulatory action" as one that is likely to result in a rule

that may (1) have an annual effect on the economy of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; (2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; (3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations of recipients thereof; or (4) raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the executive order.

Pursuant to the terms of the executive order, the EPA has determined that this final rule is not a "significant regulatory action" within the meaning of the executive order.

D. Executive Order 12875

To reduce the burden of federal regulations on States and small governments, the President issued Executive Order 12875 on October 26, 1993, entitled Enhancing the Intergovernmental Partnership. In particular, this executive order is designed to require agencies to assess the effects of regulations that are not required by statute and that create mandates upon State, local, or tribal

governments. This regulation does not create mandates upon State, local, or tribal governments.

E. Regulatory Flexibility Act/Small Business Regulatory Enforcement Fairness Act of 1996

The Regulatory Flexibility Act of 1980 (5 U.S.C. 601, et seq.), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), requires the EPA to give special consideration to the effect of Federal regulations on small entities and to consider regulatory options that might mitigate any such impacts. The EPA is required to prepare a regulatory flexibility analysis, including consideration of regulatory options for reducing any significant impacts, unless the Agency determines that a rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small not-for-profit enterprises, and small governmental jurisdictions.

The EPA performed an Initial Regulatory Flexibility Analysis (IRFA) to determine the extent of any impacts under the proposed rule. This IRFA was included in the docket for the proposed rule. In the supplemental proposal, the EPA proposed to expand the class of regulated entities to include all automobile refinish coating component manufacturers and importers.

The EPA estimates there are about 20-25 companies producing automobile refinish coatings and coating components. At least 10 of these are large companies that have the majority of the industry market share. The EPA believes that the remaining 10-15 companies have fewer than 500 employees and are therefore small entities in accordance with Small Business Administration regulations applicable to this rule. Several of the small companies produce only thinners and reducers. The thinners/reducers used in low-VOC coatings are not significantly different from those used in conventional coatings; therefore, the rule will not have a significant impact on manufacturers of thinners/reducers because little, if any, reformulation of these components will be necessary under the rule. Some of the remaining small companies already produce low-VOC coatings and coating components because they operate in areas that already have State or local automobile refinish rules in effect. Most State and local rules are at least as stringent as the national rule. The EPA concludes, therefore, that the rule will not have a significant impact on these companies.

The remaining small companies will be impacted by the rule, but the EPA believes that the impact will not be significant. The impacts of the rule are from process modifications, training, and reporting requirements, as discussed in the IRFA. Process modifications are those



changes that may be necessary for the production of low-VOC (high-solids) coatings, including the use of different mixing and pumping equipment. Some manufacturers affected by State and local rules have already complied with those rules by changing the recommended mixing ratios of components and have not changed the components themselves in a significant way; therefore, few process modifications have likely been necessary in these cases. Where process modifications are necessary, their impact will not be significant; when such impacts are examined assuming that they will be passed on to the user (as was done in the IFRA), the impacts do not significantly affect the cost of coatings or refinish jobs.

The EPA believes that the impacts from training and reporting requirements of the final rule will be minimal. Many States have developed automobile refinish rules since the time the impacts analysis for the proposed national rule was performed, and the regulated entities have already taken steps to comply with such regulations. It is likely that most, if not all, regulated entities are already familiar with low-VOC coatings; therefore, the need for training (and, thus, training costs) are likely overstated in the analysis for the proposed rule. Training was estimated to cost less than \$500 per individual for the proposed rule. For small entities with few employees needing training, this

cost would not be significant. Reporting requirements of the proposed rule consisted of an initial report that provides the EPA with basic information about regulated entities (name, location, etc.), and periodic reports (if necessary) to explain any new date codes that regulated entities may use to indicate the manufacture date of components. The EPA has retained the same labeling and reporting requirements in the final rule. Given the limited nature of the reporting requirements, the EPA believes that the impact of the reporting requirements of the final rule will not be significant.

The EPA does not have data sufficient to quantify precisely the impact of the rule by measures such as percentage of sales, but the nature of the impacts are such that the impacts will be small. The EPA bases this conclusion upon the information that was reasonably available to the Agency.

There are several aspects of the final rule which the EPA has included to minimize any impacts to small entities. First, the EPA has not required regulated entities to perform initial VOC testing of coatings or coating components or any of the coatings that might result from the combination of the entity's components with those of other regulated entities. The EPA believes that such an approach would have required regulated entities to perform numerous

tests which, in the aggregate, could have imposed significant costs upon regulated entities. The EPA believes that such a requirement could have a disproportionate impact upon small entities. Instead, the EPA has linked responsibility for a coating's compliance with the regulated entity's recommendations for use. The EPA will assure compliance by "spot-checking" the VOC content of the coatings that result from such recommendations.

Second, the EPA has not required regulated entities to perform periodic VOC testing of coating or coating component batches. The EPA considered requiring regulated entities periodically to test batches of their coatings or coating components to ensure that the VOC content of coatings resulting from the combination of such components would be compliant. As discussed above, compliance with the rule will be determined by the spot-checking of coatings. Regulated entities may rely on formulation data only to assure themselves of their compliance, or they may decide to perform some VOC testing for this purpose, but the EPA is not requiring batch testing. The EPA believes that not requiring batch testing will limit the impact upon regulated entities and, in particular, will help to alleviate impacts upon small entities.

Finally, the EPA has not required recordkeeping by regulated entities. The EPA considered requiring regulated

entities to maintain records containing information on coating and coating component batches but determined that such records would not aid significantly in the enforcement of the standard. As stated above, the only reporting requirements are an initial report that allows the EPA to determine the universe of regulated entities, and reports that explain date codes if such codes are used to indicate the date of manufacture. The EPA believes that minimization of recordkeeping and reporting requirements will help to decrease impacts upon small entities.

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. Based on the results of the analysis at proposal (which was unaffected by public comments), the EPA concluded that this rule does not have a significant economic impact on a substantial number of small entities.

F. Unfunded Mandates Act of 1995

Under section 202 of the Unfunded Mandates Reform Act of 1995 ("Unfunded Mandates Act"), signed into law on March 22, 1995, the EPA must prepare a budgetary impact statement to accompany any proposed or final rule that includes a Federal mandate that may result in estimated costs to State, local, or tribal governments in the aggregate, or to the private sector, of \$100 million or more in any one year. Under section 205, the EPA must select the

most cost-effective and least burdensome alternative that achieves the objectives of the rule and is consistent with statutory requirements. Section 203 requires the EPA to establish a plan for informing and advising any small governments that may be significantly or uniquely impacted by the rule.

Based upon the analysis presented in the EIA, the EPA has determined that the action promulgated today does not include a Federal mandate that may result in estimated costs of \$100 million or more to either State, local, or tribal governments in the aggregate, or to the private sector, in any one year. Therefore, the requirements of Sections 202 and 205 of the Unfunded Mandates Reform Act do not apply to this action. The EPA has likewise determined that the final rule does not include regulatory requirements that would significantly or uniquely affect small governments. Thus, today's action is not subject to the requirements of section 203 of the Unfunded Mandates Act.

G. Submission to Congress and the Comptroller General

The Congressional Review Act, 5 U.S.C. §801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United

States. The EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A Major rule cannot take effect until 60 days after it is published in the Federal Register. This rule is not a "major rule" as defined by 5 U.S.C. §804(2). This rule will be effective [insert date of publication in the FEDERAL REGISTER]

H. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (the NTTAA), Pub. L. No. 104-113, § 12(d) (15 U.S.C. 272 note), directs the EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, business practices, etc.) that are developed or adopted by voluntary consensus standard bodies. The NTTAA requires the EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

Today's rule includes three test methods. To determine the VOC content of coatings, this rule specifies the use of the EPA's Method 24. This method describes how to determine VOC content using several American Society for Testing and

Materials (ASTM) methods. To determine the acid content of pretreatment wash primers, and to determine the specular gloss of topcoats, this rule specifies the use of other ASTM methods. The EPA proposed these voluntary consensus standards and received no adverse comment on their use for the stated purposes. In preparing the final rule, however, the EPA has investigated to determine the availability of any other existing voluntary consensus standards for use in lieu of the proposed methods. The EPA has searched for additional voluntary consensus standards that might be applicable. The search included use of the National Standards System Network, an automated service provided by the American National Standards Institute for identifying available national and international standards. The EPA has not identified any voluntary consensus standards that are not presently included in Method 24 and that would result in equivalent results. The EPA did identify another voluntary consensus method (ASTM D-3960) that provides instructions for calculating VOC content in many different units. Because this other method does not specify which units to use, it may result in inconsistent applications of the procedure and could make the standard more difficult to enforce. Consequently, the EPA determined that this other voluntary consensus method would be impractical to adopt. In addition, the EPA believes that it is appropriate to use

Method 24 both because it has proven reliable and practical to achieve the goals of reducing VOC and because the EPA wishes to foster uniformity in testing nationwide. Accordingly, the EPA has determined that Method 24 constitutes the appropriate method for determining product compliance under this final rule. The EPA has located no alternative voluntary consensus standards more appropriate than those included in today's rule.

I. Executive Order 13045

Executive Order 13045 applies to any rule that the EPA determines (1) is economically significant as defined under Executive Order 12866, and (2) for which the environmental health or safety risk addressed by the rule has a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is not subject to Executive Order 13045, entitled Protection of Children from Environmental Health Risks and Safety Risks (62 FR 19885, April 23, 1997), because it is not an economically significant regulatory action as defined by Executive Order 12866, and it does not



address an environmental health or safety risk that would have a disproportionate effect on children.

Executive Order 13084

Under Executive Order 13084, the EPA may not issue a regulation that is not required by statute, that significantly or uniquely affects the communities of Indian tribal governments, and that imposes substantial direct compliance costs on those communities, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by the tribal governments, or the EPA provides to the Office of Management and Budget a description of the prior consultation and communications the agency has had with representatives of tribal governments and a statement supporting the need to issue the regulation. In addition, Executive Order 13084 requires the EPA to develop an effective process permitting elected and other representatives of Indian tribal governments "to provide meaningful and timely input in the development of regulatory policies on matters that significantly or uniquely affect their communities." Information available to the Administrator does not indicate that this action will have any effect on Indian tribal governments.

List of Subjects

40 CFR Part 9

Reporting and recordkeeping requirements.

40 CFR Part 59

Environmental protection, Air pollution control,  
Automobile refinishing, Consumer and commercial products,  
Incorporation by reference, Ozone, Volatile organic  
compound.

Dated: August 14, 1998.

Carol M. Browner.

Administrator.